

**Notice of Allowability**

Application No.

09/806,340

Applicant(s)

MATSUZAKI ET AL.

Examiner

Callie E. Shosho

Art Unit

1714

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--*

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to amendment filed 2/1/06 and telephonic interview conducted 2/15/06.
2.  The allowed claim(s) is/are 6 and 11.
3.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some\*    c)  None    of the:
  1.  Certified copies of the priority documents have been received.
  2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.  
(a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached  
    1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.  
(b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of  
    Paper No./Mail Date \_\_\_\_\_.  
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftsperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
    Paper No./Mail Date 11/23/05
4.  Examiner's Comment Regarding Requirement for Deposit  
    of Biological Material
5.  Notice of Informal Patent Application (PTO-152)
6.  Interview Summary (PTO-413),  
    Paper No./Mail Date 2/15/06.
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other \_\_\_\_\_.

**Examiner's Amendment**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

(1) Claim 6, delete the status identifier "(Allowed)" and insert "(Previously Presented)".

(2) Claim 11, delete the status identifier "(Allowed)" and insert "(Previously Presented)".

2. Authorization for this examiner's amendment was given in a telephone interview with Shruti Costales on 2/15/06.

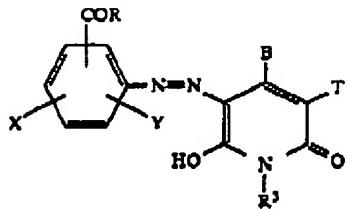
**Statement of Reasons for Allowance**

3. In the office action mailed 11/3/05, claims 1, 2, 16, and 17 were rejected while claims 6 and 11 were indicated as allowed.

In response, in the amendment filed 2/1/06, applicants' cancelled claims 1, 2, 16, and 17.

Thus, claims 6 and 11 are allowable over the "closest" prior art Leoffler (U.S. 4,514,226), JP 09-034933, and JP 06-059510 for the following reasons:

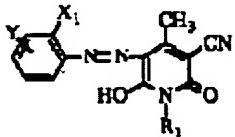
Leoffler discloses pyridone azo compound of the formula:



where X is hydrogen, chlorine, bromine, methyl, or methoxy, Y is hydrogen, chlorine, or bromine, B is C<sub>1</sub>-C<sub>3</sub> alkyl, T is cyano, and R is NR<sup>1</sup>R<sup>2</sup>. However, B, which corresponds to presently claimed R<sup>12</sup>, is C<sub>1</sub>-C<sub>3</sub> alkyl which is outside the scope of the present claims which require that R<sub>12</sub> is a linear or branched alkyl group having 4 or more carbon atoms. Additionally, applicants' filed 1.132 declaration on 12/11/03 which compares ink within the scope of the present claims, i.e. comprising pyridone azo colorant wherein R<sub>12</sub> is C<sub>4</sub> alkyl, with ink outside the scope of the present claims but within the scope of Leoffler, comprising pyridone azo colorant wherein R<sub>12</sub> is C<sub>3</sub> alkyl. It is shown that ink of the present invention is superior in terms

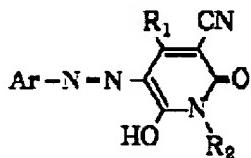
of light resistance. Thus, the declaration is successful in establishing unexpected or surprising results over Leoffler.

JP 08-034933 discloses dye of the formula:



where  $X_1$  is hydrogen or halogen,  $Y$  is hydrogen, halogen, alkoxy, etc., and  $R_1$  is  $C_1-C_8$  alkyl. However, as seen from the above formula, the substituent corresponding to presently claimed  $R_{12}$  is  $CH_3$ , i.e. alkyl group with 1 carbon atom, which is outside the scope of the present claims that require that  $R_{12}$  is a linear or branched alkyl group having 4 or more carbon atoms. Further, there is no disclosure in JP 08-034933 of aqueous ink as required in present claim 6.

JP 06-059510 discloses dye of the formula:

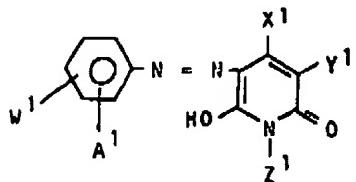


where  $Ar$  is substituted phenyl wherein the substituents include  $CONR_9R_{10}$  and  $R_1$  is  $C_1-C_6$  alkyl. However,  $R_2$ , which corresponds to presently claimed substituent  $R_{13}$ , is  $C_1-C_6$  alkyl which is outside the scope of the present claims that require  $R_{13}$  that is linear or branched alkyl group having 8 or more carbon atoms. Additionally, while JP 06-059510 discloses,  $R_1$ , which corresponds to presently claimed  $R_{12}$ , that is  $C_1-C_6$  alkyl, there is no criticality disclosed with respect to the number of carbon atoms in this alkyl group. This is especially significant in light of

the comparative data set forth in applicants' 1.132 declaration filed 12/11/03. The declaration compares ink within the scope of the present claims, i.e. comprising pyridone azo colorant wherein R<sub>12</sub> is C<sub>4</sub> alkyl, with ink outside the scope of the present claims but within the scope of JP 06-059510, comprising pyridone azo colorant wherein R<sub>12</sub> is C<sub>3</sub> alkyl. It is shown that ink of the present invention is superior in terms of light resistance. Thus, the declaration is successful in establishing unexpected or surprising results over JP 06-059510. Further, there is no disclosure in JP 06-059510 of aqueous ink as required in present claim 6.

In light of the above, claims 6 and 11 are passed to issue.

4. Upon updating the searches, a new reference came to the attention of the examiner, namely, EP 38439 which discloses dye of the formula:



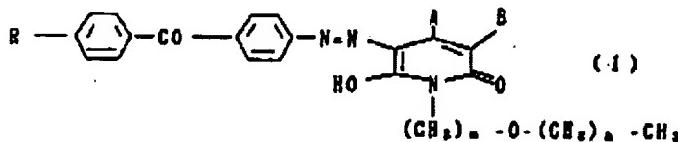
where X<sup>1</sup> includes C<sub>1</sub>-C<sub>6</sub> alkyl, Y<sup>1</sup> includes cyano, A<sup>1</sup> includes CONR<sup>4</sup>R<sup>5</sup>, W<sup>1</sup> includes hydrogen or alkyl, and Z<sup>1</sup> includes C<sub>8</sub>-C<sub>20</sub> alkyl. However, given that there are no examples in EP 38439 that disclose the presently claimed pyridone azo compound and given the large number of choices in EP 38439 from amongst which the presently claimed substituents must be selected to

arrive at the presently claimed pyridone azo compound, EP 38439 is at best a reference against the present claims under 35 USC 103.

However, a rejection under 35 USC 103 utilizing EP 38439 is not envisaged in light of applicants' declaration filed 12/11/03. The declaration compares ink within the scope of the present claims, i.e. comprising pyridone azo colorant wherein R<sub>12</sub> is C<sub>4</sub> alkyl, with ink outside the scope of the present claims but within the scope of EP 38439, comprising pyridone azo colorant wherein R<sub>12</sub> is C<sub>3</sub> alkyl. It is shown that ink of the present invention is superior in terms of light resistance. Thus, the declaration establishes unexpected or surprising results over EP 38439.

5. Applicants' IDS filed 11/23/05 has been considered. It is noted that Leoffler (U.S. 4,514,226) has been stricken from the IDS as redundant given that this reference is already cited on the PTO-892 mailed with the office action of 6/27/02. Further, it is noted that the present claims are allowable over the "closest" prior art cited in the IDS, namely, JP 64-087665 for the following reasons:

JP 64-087665 discloses dye of the formula:



where A is C<sub>1</sub>-C<sub>6</sub> alkyl and B is cyano. However, as seen from the formula, the substituent corresponding to presently claimed substituent R<sub>13</sub> is (CH<sub>2</sub>)<sub>n</sub>-O-(CH<sub>2</sub>)<sub>n</sub>-CH<sub>3</sub>, which is in direct

contrast to the present claims that require R<sub>13</sub> that is linear or branched alkyl group having 8 or more carbon atoms.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Callie E. Shosho  
Primary Examiner  
Art Unit 1714

CS  
2/15/06